Scott. H-27—40,000—

Rev. (1937) Department

M SERIES.

G.O. No. 479,

DATED 5-3-1937

[Despatch Abstract.]

Rev 3421 E
29.8.36

MEMORANDUM submitted by the Deputation who waited upon the Hon. the Revenue Member to the Government of Madras touching the areca-pest in the Puttur and Kasargod Taluks of the South Kanara District.

Madras. Dated 28th August 1936.

Sir,

The arecanut gardens of the Puttur and Kasargod Taluks of the South Kanara District have been, as you are personally aware, the chief source of wealth and livelihood of a good proportion of the inhabitants of these two taluks. Out of a total extent of about - 17,000 acres of arecanut gardens in the entire district, the Puttur Taluk contributes approximately 8,600 acres and the Kasargod Taluk about 4,000 acres. Out of the foreign and coasting trade of the port of Mangalore through which most of the areca from these taluks is exported, arecanut accounts annually for about 35,000 candies of areca valued approximately at about Rs. ~~40,00,000~~ 25 lakhs (average for the years 1930-1933). Taking the total agricultural wealth of the district, areca comes next in importance only to paddy and cocoanut. In paragraph 10 of the Re-settlement Scheme Report of the district is given the following description of an areca garden. "A good areca garden is a joy to behold. It is cool and shaded. The slender stems of the palms rise in delicate and serried order like the columns of some Gothic work of architecture and are roofed with a beautifully-patterned green tracery. In between the arecas, are plaintain trees with their large fan-shaped leaves grouped picturesquely round the areca stems which are further decorated by pepper vines winding up them. A few jack and cocoanut trees give a touch of solidarity to the whole picture."

2. As you are aware these arecanut gardens represent

and are the result of generations of patient sweat and labour on the part of its petty peasant proprietors - and their families practically all the months of a year and all the days of a month. On account of the intensive cultivation of these gardens and the fairly good prices which arecanut fetched in the post-war boom years 1922 to 1929 when prices ranged from about Rs. 120/- to Rs. 200/- per candy the areca growers were able to make a comfortable living. But like all post war booms prices fell very sharply from 1930 and since. It fell to even Rs. 50/- per candy in 1930 and during 1935 and 1936 it ranged from about Rs. 70 to 80. But unlike padd or cocoanut cultivation, a good portion of the income is taken up by the cost of cultivation, so that since the depression began the income has been hardly sufficient to meet the cost of labour and upkeep of these gardens and the maintenance of the ryot and his family. The result has been that it would be no exaggeration to stat that to-day atleast two-thirds, if not three-fourths, of the arecanut growers of these taluks are steeped in debt With the abnormal fall in the price of lands of in the district generally, and in that of areca gardens particularly, the debts secured on the gardens are in excess of their real value with the result that suits after suits to recover the mortgage, principal and interest, often in arrears, are being filed in the concerned Civil Courts and in execution of decrees passed thereon the decree-holders themselves bid and purchase the lands at phenomenally low prices for want of other bidders. All credit having been exhausted, these areca growers have been obliged to shift for themselves as best as they can.

3. Whilst the position was thus bad enough, during the last year a few areas in the Kasargod Taluk and some in the Puttur were affected by the arecanut pest called

'Koleroga' or 'Mahali' disease, and in many instances, the owners suffered heavily. In most affected gardens there was practically little or no income. In many - cases the areca owner has to depend entirely for the - sustenance of himself and his family on the produce of his gardens as he does not happen always to own paddy lands as well. He has to sell the areca and buy the rice necessary for his food. There was thus destitution and severe privation in some families particularly in the Hathiadka side of the Puttur Taluk.

4. Whilst such was the position last year, the disease has spread since May last by leaps and bounds over practically all gardens of the Puttur Taluk and a good many portionsof the Kasargod Taluk as well. This is probably due to the unprecedented rains which the district had since the end of May last, when during the months of June and July, there was a rain-fall of nearly 100 inches, much in excess of the annual average. The position caused by the pest has been beyond the control of the ryot population who have beem in spite of all efforts on their behalf unable to cope with the situation.

5. The remedy suggested by the Agricultural Department is that of spraying the arecanuts with the - Bordeaux mixture by means of sprayers. In the first place, the supply of sprayers has been absolutely scanty and insufficient to meet the exhorbitant demand on the part of the ryots concerned. Even wholesale merchants in Madras and Bombay have been unable to supply the required numbers. An ordinary sprayer with the necessary tubing costs about Rs. 60/-. As the spraying has to be done during the interval between the rains, it is found in practice that for the use of one acre of an areca

garden one sprayer would be required. You may well imagine the financial helplessness of a ryot having three to five acres of gardens to buy or secure the necessary number of sprayers. With so much demand for these sprayers and the inadequate supply to meet that demand, people have been obliged to pay the fanciful prices demanded for them by some local merchants. But that the ryots have, in spite of their limited resources, tried their level best to combat the disease, and have not sat quiet helplessly, can be seen from the following figures showing the cost and quantity of the chemicals used in these two taluks in the last three months (obtained from the Mangalore Agent of the Indian Chemical Company supplying the first three of them). From the 25th of May 1936 till the 25th of August 1936 nearly 33 tons of copper-sulphate costing about Rs. 13,200, 15 tons of resin costing Rs. 6,000, 6½ tons of washing soda costing about Rs. 1040, have been purchased and used by the ryots concerned. If we add to this the value of the chunam necessary for the mixture, approximately 35 tons costing Rs. 4,900, and 300 tins of oil costing Rs. 1875, the total value of the mixture alone comes to nearly Rs. 27,000/-. To this must be added the cost of labour consisting of atleast 4 coolies to work one sprayer, it is found in actual practice that spraying once one acre of a garden costs very nearly Rs. 35/-. This process, to be effective, has to be repeated atleast 3 to 4 times in a year. One may well imagine the enormous cost and expense which the ryots have been put to during the current year alone by reason of the pest, if one also takes into consideration their already indebted and helpless condition. Added to all this is the almost total loss of the areca crop in the gardens thus affected. Out of an average yield of about 35,000 candies of areca in these two taluks it is expected that the yield this year will not come up to anything more than about 10,000 candies. Valued

at Rs. 80/- per candy the loss in income during the current year is expected to be approximately Rs. 12(?) lakhs. Such is the position in which the thousands of ryots of these two taluks are now situated. There are numerous cases in which the ryots concerned are absolutely penniless and many a home in which there is actual starvation. Whilst that is the position even at this stage, one may well imagine what is to happen to them in the days to come as it is understood that the pest which has come on this wide-spread scale is not likely to disappear in a few months or in a few years.

6. It is, therefore, our humble request to you, Sir, to come and see all things for yourself so that you may know first-hand that all that we have stated here is nothing compared to the actual state of distress and misery amongst the ~~wholesale~~ entire population of areca growers of these areas. After your inspection we shall venture to place before you our humble proposals as to what should be done to tackle the situation which is beyond the capacity of either the people ~~xx~~ concerned or any non-official agency to deal with.

We beg to remain,

Sir,

Your obedient servants,

M. Schammad

Pleading Head.

Rec'd on 29/8
Season (S. Kanara)

Q. issue in Rev. Bd. 29/8

Damage

6

To Rev. dept.

Memo. No. 2421 E/36-29-8-36

Pests - havoc - Areca garden (~~South Kanara~~) - ~~Pesthis~~ Puttur and Kasargod talks.

Memorandum of 28.8.36 to the Hon'ble the Revenue Member.

A copy of a Memorandum on the above subject submitted by a deputation which waited upon the Hon'ble the Revenue Member (on 28.8.36) is forwarded to the Board of Revenue. ~~The~~ The Board is requested to submit a detailed report in the matter so as to reach the Govt. early next ~~week~~ month.

2

Dpty. Sec. 29/8.

To the Board of Rev. ✓ (with rec.)

[Op. memorial in the C.F. without the remarks of H.M.

29-8-36

29.8.36

C.F. 31—13,206—14-12-35.

REVENUE **DEPARTMENT.**

CURRENT No.

Received 19 . *Registered* 19

Subject.

SEASON REPORT - (South Kanara) - Pests Havoc - Areca gardens - Report submitted.

Refce. M. No. 4307/36-2.

Station MADRAS, *Dated the* 14th September 1936. 19 .

From

D. I. R. Muir, Esq., I.C.S.,

Joint Secretary,

Board of Revenue.

The Hon'ble Diwan Bahadur N. Gopalaswami Ayyangar, C.I.E.,
Commissioner of Land Revenue & Settlement.

Read the following paper:-

I.

Letter from Khan Bahadur Muhammad Humayun Sahib Bahadur, B.A.,
Collector of South Kanara, No. Nil, dated the 8th September 1936.

REFERENCE:-

Submitted to Government with reference to their Memorandum No.E.3421-E/36-1, dated the 29th August 1936.

2. The Board has called for an urgent report from the Director of Agriculture on the suggestion of the Collector to apply the Madras Agricultural Pests and Diseases Act to the District and will submit a further report to the Government on its receipt.

3. The Collector should submit a special report after

the

the enquiries mentioned in paragraph 8 of his report are completed to enable the Board to consider whether any action under Board's Standing Order No.14 is necessary.

For Joint Secretary.

To

The Secretary to Government, Revenue Department
(with graphs in original).

The Collector of South Kanara.

T.D.R.14-9-.

9 Enclosure to B.R.
Y 4307-36-7 (1)

South Kanara Collector's Office,
Mangalore, dated 8th September 1936.

From

Khan Bahadur Muhammad Humayun, Sahib Bahadur, B.A.
Collector of South Kanara.

To

The Secretary to the
Board of Revenue,
Madras.

Sir,

Subject:- Season--South Kanara--Areca gardens--Mahali pest--report submitted.

Ref:- Board's Ref. No. Y. --4307/36 dated 31st August 1936.

I submit the following report, as regards the memorandum of the deputation which waited upon the Hon'ble the Revenue Member, for grant of relief measures in connection with the Mahali pest of areca gardens in this district.

2. Extent of areca gardens and export of their produce:-

According to the season and crop report of the last fasli, the following as the total extent of the areca gardens in each of the six taluks in this district:-

Taluk.	Acres.
Puttur ..	9,800
Kasaragod .	4,500
Karkal .	1,765
Coondapur .	1,609
Mangalore .	800
Udipi ..	314
Total.	18,788

It will be seen from the above, that the Puttur Taluk has the largest extent of areca gardens and that Kasaragod comes next. It is in these two Taluks that the Mahali pest of areca trees is most prevalent, as stated by the deputation. The pest has appeared this year in about 40% of the gardens in these two Taluks. The acreage of gardens given in paragraph 1 of the memorandum of the deputation is not correct. Large

quantities of arecanut are exported annually from Mangalore port as stated by the deputation.

3. Nature and history of the pest:-

This pest has been prevailing for some decades, in the west coast districts and in Mysore, Cochin and Travancore. It is due to a whitish fungus which first attacks the fruit of the areca palm. The nuts to which this fungus sticks on, become somewhat soft and get rotten, however young they might be. The fungus spreads very quickly and unless remedial measures are taken , the whole produce of the areca garden in badly affected cases will be found lying on the ground in a rotten condition. In some severe cases, the fungus attacks also the crown of the trees and kills them altogether. But the percentage of the dead trees in the worst cases I have inspected is less than one. The pest spreads to cocoanut trees also if there are any in or near the areca garden. The pest is said to have first come into this district from the Mysore frontier. About 8 years ago, the pest was widespread in some villages of the Beltangady D.'. Tahsildar's division in Puttur Taluk. The Agricultural Department readily made an investigation and demonstrated suitable measures for eradicating the pest. Spraying the affected bunches of areca fruit with a preventive solution has been a well known remedy from that time. The Agricultural Demonstrator, Puttur, has been annually visiting these villages during the rainy season and assisting the ryots in taking remedial measures. In 1934, the pest was noticed in Bayar and other villages of Kasaragod Taluk and the adjoining villages of Vittal Firka in Puttur Taluk. A special subordinate of the Agricultural Department was then stationed at Bayar as it was the centre of the areca gardens in Puttur and Kasaragod Taluks. He demonstrated preventive operations and about 1,16,150 trees had been sprayed under the supervision of the Agricultural Department. In the year 1935, the pest appeared in some villages of Coondapur, Puttur and Kasaragod Taluks. From June to September 1935 two subordinates of the Agricultural Department were stationed at Shankernaraina and Bayar villages as those places were central to the worst affected areas in the

district. As stated in the memorandum of the deput
pest has been prevailing very widely this year in the
Hattnyaoka, Shibaje, Shisila, Kowkradi and Nille of the n
Sub Taluk of the Puttur Taluk. It is also prevailing to
in some other villages of Puttur Taluk and in some vil
Kasaragod Taluk. From statement B enclosed which rela
Puttur Taluk only it will be seen that out of 9,800 acre
gardens in that Taluk an extent of altogether 3,889 a
been affected by this pest. It is only an extent of a
acres that has been very severely affected out of the ab
tioned area. The extent of such severe loss in Kasaragod Taluk
is likely to be 300 acres. Season reports received from the Tah-
sildars of Coondapur and Karkal Taluks do not make any mention
of this pest in those Taluks; but I have a suspicion that in a
few villages of those areas also it is existing in a mild form.
The pest has started in Thajir village of Mangalore Taluk. The
total extent of gardens in the whole district which have been very
badly affected is estimated at 1,000 acres only.

4. Preventive measures and their success:-

The Department of Agriculture deserves to be warmly congratu-
lated on the excellent remedy it has devised and the remarkable
success which it has met with in each and every garden in which i
was adopted. The deputation itself testifies to the great effi-
cacy of this remedy by mentioning in paragraph 5 of its memorandum
the huge quantities of chemicals that the ryots had purchased and
used from 25th May to 25th August 1936. It is a fact that during
that period 3 tons of copper sulphate, 15 tons of rosin and 6
tons of washing soda had been purchased by ryots for preparing the
sticky solution called Bordeaux mixture to be sprayed on areca
bunches both as a remedial and as a preventive measure. The are-
ca gardens flower about the month of April and begin to bear fruit
from about May. ~~Three~~ Three sprayings of the Bordeaux mixture are
prescribed for complete immunity from the pest throughout the year.
The first spraying of the bunches of fruit should be done in May
while there are no rains. The solution sticks on to the fruit; as

ie fruit grows and as rains fall some of the coating
.re on the fruit is lost and so a second spraying
ie 15th July and 15th August is necessary. As there wil
er rains and further growth of the fruit, a third spraying is
in the latter part of September to remove all chances
t appearing about the harvest time. From the same tree
s is harvested three times, once in November, a second
cember and finally in January or February. Gardens
been sprayed only twice have sometimes remained quite
one can never be too careful nor doing too much in
one's garden as a preventive measure in an affected locality. The spraying mixture recommended by the Agricultural Department is the best remedy found till now. Some ryots used castor oil etc. instead of rosin and washing soda to make the mixture sticky. It is owing to this practice that the deputation has referred to oil as one of the ingredients of the mixture. But the use of oil in the mixture has proved to be ineffective. A new spraying mixture called Longiseptal has just come into the market. It has not yet been tried extensively.

The cost of the spraying operation:-

Bordeaux mixture is prepared by mixing together copper sulphat other ingredients in the proportion given below:-

Co per sulphate	...		5 lbs
Quick lime		...	5 lbs
Water ...		...	50 gallons
Rosin ...		...	10 lbs.
Washing soda		...	5 lbs.

Copper sulphate is first powdered and dissolved in 25 gallons of water and the solution is kept separate. Then quick lime is prepared into thin slaked lime with the remaining quantity of 25 gallons of water. Both these solutions are then mixed together and to the mixture thus prepared rosin and washing soda are added. The method of preparing this special solution is very easily learnt by the ryots concerned. For spraying this mixture about four kinds of sprayers are now on the market. These sprayers are obtained for the prices mentioned below:-

(1) Myers (American)
Bucket pump sprayer ... Rs. 55

(2) Pneumatic knap sack-holder sprayer. ... Rs.33 to

(3) Eclipse sprayer with four spraying noses to be used simultaneously ... ... " 75

(4) Pomana sprayer with controller .. " 33 plus Rs. 7-8-0

As stated in the memorandum of the deputation the price of an ordinary sprayer with the required hose may cost about Rs.60. The good sprayer of the price lasts for 3 years at least. If a ryot has only three acres of areca garden one sprayer costing Rs.60 will suffice for three acres for three years. The cost of a sprayer for a year for one acre will therefore be taken to be Rs.$\frac{60}{9}$ or Rs.6-10-8 or Rs. 7. An acre of garden has from 400 to 1,000 trees as stated in para 10 of the last Re-settlement scheme report of this district. On the average, the number of trees per acre may be estimated at 750. The cost of preparing Bordeaux mixture required for one spraying of 750 trees is as follows:-

15 lbs of copper sulphate ..	Rs.2	5	6
15 lbs of lime ..	" 0	7	6
6 lbs of rosin	" 0	12	0
3 lbs of soda	" 0	3	0
Total	" 3	12	0

As three sprayings per year are required the cost of the Bordeaux mixture required for the whole year will be 3 x Rs.3-12-0 or Rs. 11-4-0. As spraying is being done extensively in the affected Taluks, a class of coolies for spraying has been established and Rs.3 is recognised as the usual charge for spraying a quantity of mixture containing one lb of copper sulphate. The mixture required for three sprayings for all the trees in an acre of garden contains 45 lbs of copper sulphate. The spraying charges per acre will thus be Rs.8-7-0. It is estimated that the miscellaneous expenses required for firewood etc. in preparing the mixture will be at most Rs.0-4-0 per acre. The following is therefore the total expenditure required for rendering an acre of arecanut garden completely immune from Mahali blast.

(1) Proportionate cost of a sprayer ..	Rs.7	0	0
(2) Cost of chemicals for spraying ..	" 11	4	0

Wages for spraying	...Rs	8 7 0
Other miscellaneous expenditure ..	"	2 4 0
Total.	"	28 15 0

6. The alleged difficulties in spraying:-

Spraying a garden is no doubt a tedious process but persons who depend on these gardens for their living have to spend their time in looking after them while this pest is prevailing. It is quite possible to eradicate the pest altogether if one and all of the gardeners adopt the remedy during the whole season as advised by the Department of Agriculture. It will be seen from column 8 of the enclosed statement B that the pest is gradually extending to gardens which were not hitherto attacked. This is due mostly to the fact that there has been no co-operation amongst the ryots to stamp out the fungus once for all from all gardens. In paragraph 5 of its memorandum, the deputation has stated that ryots have been finding some difficulty in purchasing sprayers at a reasonable price. It is a fact that about a month ago the number of sprayers for sale in the market was rather small. But this was due to the ryots having suddenly woken up and recognised the advantages of spraying. The Imperial Chemical Industries India Ltd. at Mangalore have now some sprayers for sale. The Agricultural Demonstrators have some sprayers to be lent to ryots for a nominal hire. The Dy. Director of Agriculture, Tellicherry, has arranged to obtain from the Director of Agriculture all the available sprayers belonging to the Department for use in this district. But one and all of the garden owners must be keen on taking up the advice of the Agricultural Demonstrators and using these sprayers. The owner of a garden in Vittal firka is reported to have been trying to get rid of the pest by worshipping a deity. The owner of another garden has gone away somewhere and there is nobody to spray it although it has been attacked by the pest. Another person owning a small garden in Puttur village is said to be too poor to spray his garden. The statement of the deputation that some families are too poor to resort to spraying may be correct. But the number of such families is very small.

Ho ever the fact remains that f
affect d gardens have not b en s r
ing f om th re to gardens which
t t m nt that the rains th
th avera e fa l of previous y
th y ar in "ay, June, Jul
comp red with the avera e rainf
30 y ars from 1903 to 1932.

Average in ay for 30 y	
In ay 1936 ...	
Average in Jun for 30 y r.	
In June 1936 ...	
Average in July for 30 years	3
In July 1936 ...	4
verage in ugust for 30 y ars	
In ugust 1936 ...	

A ch rt of the rainfal i. uttur aluk is also enc
r ference. Th re is no doubt th rain has much to
sh d of this fungus. In th rainy season in this
even clot s kept in boxes for a number of days without drying
s metimes get a kind of fun s st ins on them. The effect
h vy rains being what it is, th ryots ought to b carefu
spray the areca bunches in "ay without fail. If spraying
done in "ay the pest may a pe r in June and July and it m
be difficult to find a dry with good sunshine to allow th
mixture time to dry and to stick on to the bunches of fruit.
spraying proces is I believe compulsory agricultural
which cannot be given up unless the
and disappears for two years at l ast
it now ideally practised, a profe sio
existence and sprayers and chemic
any other article in demand for
spraying may appear difficult

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al Pests and Diseases'

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Bazaar rates published in

chart showing the variations

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urther in the current month.

commodity expected as a result of

again when nuts are harvested and

rge scale. It will be seen from state-

ndy of arecanut ranged from Rs.75 to

rally high from September to November.

estimating the average net income from an

arden the price per candy may be fixed at Rs.75 at

graph 10 of the last Re-settlement scheme report of

t it will be seen that the yield per acre ranges from

es. The average may be taken as three candies. In

there are some gardens which yield even 5 candies per

l not therefore be unreasonable to take 3 candies as

ield. The price of three candies is Rs.225. Deduct-

wards the cost of spraying an acre and Rs.30 at most

ion expenses and manure, and Rs. 8 on the average for

income of Rs.158 per acre. If the

g his arecanut garden sprayed

enerally be no difficulty in his

t. In para 50 (b) of the last

t the arecanut groves could

ince the profits were con-

returns to the culti-

vators who happened to be also the registered holders.

8. Extent of damage of crops and relief measures:-

Statement B gives particulars of the gardens in Kuttur Taluk which have been affected by this pest. The total area of gardens affected in that Taluk is about 3,889 acres. But it is only in a very small portion of this extent that the damage has been serious. This may be seen from the estimated average yield noted in the last column of the statement against each village. No detailed statement of this kind has been received yet from the Tahsildar, Kasaragod, which is the other Taluk that has been mentioned by the deputation and has been affected badly. I think the affected area in that Taluk will be about 3,000 acres. Out of it the acreage of gardens seriously affected will be about 300 acres. In the other four talukas the extent of damage will be still smaller. As stated in paragraph 4 above the total extent of gardens which have been very seriously affected will be about -- 1,000 acres. The assessment on that area will be about -- Rs.7,000/-. In no year till now was any remission granted under R. C. O. No. 14. Information is being gathered however about the loss of crop in each survey field of areca garden and the entire property owned by each affected ryot. The Board is aware that in this district there is the Mulgeni system of tenancy. Enquiries will therefore be made as to whether it is the Mulgar or the Mulgenidar that pays the land assessment. This is a local calamity which requires to be dealt with under R. C. O. 14 Section B. The Agricultural Department has been granting loans to ryots for the purchase of sprayers and chemicals for spraying. The Dy. Director of Agriculture, Tellicherry, is moved of a further allotment for the grant of loans. The South Kanara Flood Relief Committee is thinking of giving about Rs.1,000 from its Funds to the badly affected Brahmin families of Hathadka and other -- villages. Though the object of its funds which are now in deposit was to give relief to people affected by floods,

The Committee seems to find no objection to giving some relief to families that have been badly hit on account of this pest. The Committee will come to a decision in the matter on the 12th September to which date the its meeting has been fixed. There is absolutely no chance of anybody coming in search of labour, as the affected families do not belong to the labouring classes. They are Brahmins of the Havik and Chitpavana sects which are not accustomed to work for cooly.

9. The Madras Agricultural Pests and Diseases' Act 1909:- The application of the Act to the affected areas in this district will be quite necessary for eradicating the pest quickly. A notification under Section 3 of the Act may be issued, but executive instructions may be issued to the Collector to the effect that action under section 7 of the Act may not be taken in the case of ryots who owing to utter poverty could not take the prescribed remedial or preventive measures.

10. Conclusion:- The deputation has referred in its Memorandum to the hopeless financial position to which some garden owners are said to have been reduced. It has also referred to the high prices that prevailed soon after the great war and the present financial depression. It is true that the Mahali pest has ruined some families. But in the majority of cases the fault lay with the gardeners themselves as they failed to take the required remedial measures. Remission of revenue can be granted only in those cases where owing to poverty and inability to raise a loan, both the Mulgar and the Mulgenidar failed to spray the affected garden. In Hathyadka and the neighbouring villages Chitpavana Brahmins who are the landed proprietors are themselves the cultivators. Owing to both poverty and ignorance they failed to take up the advice of the Agricultural Department. They seem to be now in a miserable plight and deserve sympathy. I inspected some of their gardens and have been trying my best to assist them through the Flood Relief Committee. Though loss of crop was due to their own neglect, remission can be granted as a matter of grace

Your obedient servant,

M Hamaguchi

Collector

9/9/32.

Statement – A

Prices of Arecanuts.

Year	Month	Wholesale price per candy. Rs.	as.	ps.	Retail price per seer Rs.	as.	ps.	Remarks.
1934	December.	110	–	–	–	10	–	
1935	January.	120	–	–	–	10	–	
"	February.	75	–	–	–	10	–	
"	March	75	–	–	–	10	–	
"	April	75	–	–	–	12	–	
"	May.	75	–	–	–	12	–	
"	June	75	–	–	–	12	–	
"	July	75	–	–	–	12	–	
"	August	120	–	–	–	13	–	
"	September	150	–	–	–	13	–	
"	October	120	–	–	–	13	–	
"	November	140	–	–	–	12	–	
"	December	118	–	–	–	13	–	
1936	January	118	–	–	–	13	–	
"	February	115	–	–	–	13	–	
"	March	120	–	–	–	12	–	
"	April	115	–	–	–	13	–	
"	May	118	–	–	–	13	–	
"	June	115	–	–	–	12	–	
"	July	130	–	–	–	12	–	
"	August.	130	–	–	–	12	–	

South Kanara Collector's Office, Mangalore. Dated, 8-9-1936.

M Thomas
9/9/36
Collector

C.F. 31—13,206—14-12-35.

REVENUE DEPARTMENT.

CURRENT No

Received 19 *Registered* 19

Subject.

Season (South Kanara)- Pests havoc- Areca gardens- Provisions of the Agricultural pests and diseases Act- Application- Report.

Ref. No. M. 4307/36-5.

Station Madras., *Dated the* 22nd October 1936.

From

D.I.R. Muir Esq., I.C.S.,

Joint Secretary,

Board of Revenue.

C.A.Henderson Esq., V.D., I.C.S., Commr. of Land Revenue and Sett.

Read the following paper:-

Letter from M.R.Ry. Rao Bahadur D. Ananda Rao Garu, B.Sc., Director of Agriculture, Madras, D.Dis. No.C.516-36 dated 7th October 1936.

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Pests havoc- South Kanara- Areca gardens- Application of the Agricultural Pests and Diseases Act.

-

Board's Refce. Nos. M. 4307/36-3 and 4 dated the 15th Septr. 1936 and 30th Septr. 1936.

-

I do not consider that there is any necessity to introduce the Act at present. The garden owners are fully alive to the beneficial results of spraying the trees. Short term

loans

loans may be granted to those who are not able to purchase sprayers and the required quantity of chemicals, on the security of the produce from their garc either by Government or by Co-operative Societies.

2. I am arranging propoganda in sanitation methods during this harvesting season and also making arrangements to conduct trial plots next season, so that ryots may se the benefits of the departmental advice. From the keenness I noticed among ryots during the time of my visit I have hopes that they will follow our advice as in most cases they have been either ignorant of the seriousness of the pest or had not the necessary facilities to undertake spraying at the right time. In some villages, in fact, the disease made its appearance for the first time.

3. If experience shows that ryots will not take heed to our advice, then the question of applying the Act may be considered.

Reference

Submitted to the Government in continuation of the Board's Refce. No.M. 4307-36-2 dated 14th Septr.1936. H 7-5 auth

2. In the circumstances reported by the Director of Agriculture, the Board supports his recommendation that the provisions of the Agricultural Pests and Diseases Act need not be extended to the district at present.

3. As regards the grant of short term loans referred to in paragraph 1 of the letter of the Director of Agriculture, the Collector has already been instructed on the point.

for Joint Secretary.

/To the Secretary to the Government, Revenue Dept., (paras 1 to 3 only)
,, Collector of South Kanara.

M.L. J.E.G./22.10.

C.F. 31—13,206—14-12-35.

Revenue - **DEPARTMENT.**

CURRENT No.

Received 10 JAN 1937 19 . Registered 19

ASSISTANT SECRETARY TO GOVT. REVENUE DEPARTMENT

Subject.

Assessment - Remission - (South Kanara) - Areca gardens - Mahali pest - Collector's proposals - Submitted -

---

Reference-M.No.4307/36.9,

Station Madras, *Dated the* 8th January 1937.

From D.I.M.Muir, Esquire, I.C.S.,

Joint Secretary,

Board of Revenue.

C.A.Henderson, Esquire, V.D., I.C.S., Commissioner of Land Revenue and Settlement.

:-:

Read the following papers:-

Board's Reference No.M.4307/36.2, dated 14th September 36.

II

Letter from A.D.Crombie, Esquire, C.I.E., I.C.S., Collector of South Kanara, Ref.No.A-5-4431/36, dated the 19th November 1936.

III

Letter from A.D.Crombie Esquire, C.I.E., I.C.S., Collector of South Kanara, Ref.No.A-5-4431/36 dated the 27th December 1936.

-:-

REFERENCE.

The Collector of South Kanara has furnished information about the loss of crop in each survey field of areca gardens affected by the Mahali pest and the entire property owned by each affected ryot. In view of the provisions of B.C.O.No.14(10)(iii), the Collector has obtained

obtained lists only for holdings where the yield is estimated to be 6 annas or less, the normal yield being taken as 12 annas. It is reported that Udipi Taluk and Hosdrug Sub Taluk have not been affected by the pest, that the garden lands in the Mangalore taluk are not affected and that the damage to areca crop in the Buntwal Sub Taluk is not so serious as to warrant the grant of remission of assessment especially in view of the yield on other lands owned by the ryots affected. The lists relating to Kasargod, Coondapur, Karkal and Puttur taluks are enclosed. In the first three taluks though the estimated yield of the areca gardens varies from nil to six annas, the yield of the entire property owned by the af...d ryots ranged from nil to 12 annas in Kasargod Taluk, nil to 10 annas in Coondapur Taluk and 2 to 10 annas in Karkal Taluk. As the statistics relating to the Puttur Taluk do not show the need for any differential treatment, the Collector reports that this taluk may be given the same treatment as in the case of the other taluks in the matter of remissions. He therefore recommends that the maximum remission of assessment on the scale laid down in B.S.O.No.14(5)(ii) may be granted in all the four taluks in the case of ryots whose entire property has been estimated to have yielded a crop of 6 annas or less. The Board supports the Collector's recommendation.

2. The approximate amount of remission involved in the proposals is reported to be Rs.4,700/-.

3. With reference to the Government Memorandum No.4833 E/36.2, Revenue, dated the 12th December 1936, the Board submits a copy of the Collector's letter L.Dis.No.6594/36 dated the 23rd December 1936 explaining the causes for the gradual disappearance of the mahali disease in certain portions of the District.

for Joint Secretary. 8.1.37.

To the Secretary to Government, Revenue Department, with a copy of South Kanara Collector's L.Dis.No.6594/36 dated the 23rd December 1936 and with lists.

c.n.n./8-1-1937.

27 [illegible] 1/8

Rev. dept.

[illegible] - Area gardens. (for [illegible])
[illegible] and Kasargod taluks.

Memorandum of 28.8.36 [illegible] the [illegible]
Rev. member.

Extract of the note of HMCR
on the memorandum

Rev. Secy. I should like a detailed report on this as I intend to go & have a look at the place myself sometime in September.

C.A.S
28.8.36.

Extracts of remarks at p. 1 CF

— do — Call for a report of area.

H.R.V.
28-8-36.

To Rev

A draft O.M. to the Board is subd. for approval. Issue quickly.

29/8.

29.8.36.

29.8.36

1.6 CF

To the Board of Rev., Memo no. 3621 S/1 [illegible]

From the Board of Rev. Ref. M. No. 4307/86-2
dated 14-9-86. p. 7 cf

Tows.

With reference to the Govt. Memo. at p. 6 cf., the Board of Rev. has submitted a report from the Coll. of South Kanara on the areca pest in the Puttur and Kasargod talukes of that district. The Coll's report (pp. 7-18 cf.) is for perusal.

(i) Extent of the areca gardens ... pp 9-10

The figures furnished by the Coll. are compared below with those given in the memorandum (p. 1 cf) :—

	Figures in the Memo.		Figures furnished by the Coll.	
Puttur Taluk	8,600 acres	p. 1 cf	9,800 acres.	p. 9 c
Kasargod Taluk	4000 acres		4,500 acres.	
Total for the whole Dt.	17,000 acres		18,788 acres	

The pest has appeared this year in about 40 per cent of the gardens in these two talukes. A at p. 3 cf

-5-

25

(ii) Nature and history of the pest. para 3 at pp 10-11 CF

The Govt. has dealt with the origin and growth of the pest and the efforts made by the Agricultural Dept. to demonstrate preventive operations. pp 10-11 CF

In the last portion of this para (and also in para 8 at pp. 17-18 CF) the Govt. has estimated the extent of the damage wrought by the pest:

Taluka	Total area.	Area affected	Area worst hit
p. 11 CF Puttur Tk.	9,800 acres.	3,889 acres	700 acres
p. 17 CF Kasaragod Tk.	~~2,000~~ 4500 "	2,000 "	300 "
Total	14,300 "	5,889	1,000 "

p. 11 CF The total area worst affected in the two talukas together is 1000 acres.

The villages where the pest is widely* prevalent this year are:- see 'B' at p. 11 CF

Puttur Taluk: Hathyadka, Shibaje, Shirida, Kovkradi and Nidle.

Kasaragod Taluk: No details available.

* For a fuller list ~~including~~ of villages where the pest has appeared in varying degrees please see 8ff at (T)

See 'D' at p. 17 CF

(iii) Preventive measures and their success — Cost of Spraying operation. — pp 11-16 cf

In para 5 at pp. 12-14 cf.,
the Com. has estimated the cost of the spraying operation. The deposition has stated that for the use of one acre of an areca garden one sprayer (costing Rs. 60) would be required. Acording to the Com. one sprayer will be sufficient for three acres for three years — an acre containing on an average 750 areca palms. The total cost per acre for a years according to the Com. is shown below

para 5 pp. 3-4 cf

p. 13 cf

pp 13-14 cf

1. Proportionate Cost of a Sprayer	-	Rs. 7-0-0
2. Cost of chemicals	-	Rs. 11-4-0
3. Wages for Spraying	-	Rs. 8-7-0
4. Misc. expenditure	-	Rs. 2-4-0
Total	-	Rs. 28-15-0.

[illegible] (P.T.O.)

(iv) Price of arecanuts and the net income from an acre — p. 16-17 CF.

The COIr states that the price of arecanut has now gone down as stated by the deponent. During 1985 / 1986 the price per candy ranged from Rs. 75 to Rs. 130. — It rose to Rs. 140 and Rs. 150 on two occasions. According to the deponent the price varied from Rs. 70 to 80 for the same period

p. 16 CF

(is also Pet. ab p. 19 CF)

p. 2 CF

The COIr. estimates the average net income from an acre of areca garden as follows:-

The average produce per acre - 3 Candies.

p. 16 CF

The price per Candy viz - Rs. 75

The price for three Candies (1 acre) - Rs. 225.

Deduct (from Rs. 225)

(1) Cost of Spraying - Rs. 29.

(2) Cultivation expenses - Rs. 30.

(3) Assessment - Rs. 8

Total - Rs. 67

The net income (per acre) the Rs. 225 (gross income) — Rs. 67 (expenses) = Rs. 158.

(pp 17-18 CF)

Extent of damage and relief measures — Also p. one at p. 18 C.F.

The worst affected area in the two talukas is in all an extent of 1,000 acres (See sub-para (ii) at p. 3 ante). The assessment on that area approximately is stated to be Rs. 70,000. p. 17 CF

No remission has till now been granted in respect of this area — gardens. The Collr. is getting details in each information about the loss of crops. The survey field and the entire property owned by each applicant says the Board has stated that it will consider whether any action under B.S.O. 14 is necessary, on receipt of the Collr's report. The ryots state that the pest has ruined some families & that in the majority of cases the ryots are to blame for failure to take the remedial measures but that remission may be granted as a matter of grace even where loss of crop was due to neglect. — p 18 CF

para 3 at pp. 7-8 CF

B.S.O. 14(10) Th. 18/7 Ms 83.37 Vol I Micro

(vi) The Madras Agricultural Pests and Diseases' Act 1909 1919 — 18 CF.

The Board has called for a report from the Director of Agriculture on the suggestion of the Collr. to apply the provisions of para 2 p. 7 CF

the Madras Agricultural and Public Diseases Act to the district. The further report of the Board may be awaited.

2. Attention is invited to the minutes of H.M.C.2 addressed to I.N.F. in which the H.M. has stated that he intends going visiting the affected parts during the month.

The file may be sent to Dev. Dept for remarks, if any, before circulation. The attention of Dev. Secy may be invited to statement at A on p 17 C.P. that the Dy. Director of Agriculture, Tellicherry is in need of a further allowance for grant of loans for the purchase of sprayers and

18.9.86

and chemicals for spraying

18/9/36

H.H.C. will leave Mangalore on Monday (21st). Dev'l Sec'y may be asked to treat this as Special & return the file to this dept before tomorrow noon at the latest

18/9 S.

18.9.36

The file must be sent to Secretariat forthwith by Co-operative Dept

18.9.36

Development Secretariat Finance

Special

Dc

Rev-W-DVO-3421/Eb

18-9-36.

The Director Agriculture has sent a report on the outbreak of Mahali disease of arecanuts in this District.

He has ordered that all available sprayers in the depot shall be sent immediately to the Dy. Dr. of this circle.

He has applied for a staff of [illegible] Inspectors to conduct [illegible] remedial measures [illegible] 10 Field Assistants [illegible] 30 Mandors [illegible]

The file will be returned to the appln

ASSISTANT SECRETARY TO GOVERNMENT
18 SEP 1936
DEVELOPMENT DEPARTMENT

51 7

I have told him over the telephone now that he can by telegram authorise his deputy to appoint Fieldmen and Maistris if their appointment is really necessary ~~now~~ under present Conditions.
Cā
18.9.36

DA&DI has some money already at his disposal & has as a precautionary measure asked for an extra Rs1000. The D.A. has told him that there will be no difficulty to find the money. Cā
18.9.36

Dev. L.O. 44535 Tu/36-1
18-9-36.

6-00 p.m.

for the asst dir. The Director is leaving for Kan on Sunday and he has been told to go ahead with the appt of fieldmen and ~~Maistris~~ maistris after discussing with the local officers, he will write again as to the need for an asst director.

The Deputy dir of the circle has asked for Rs 1000 for grants of Takkavi loans for seed of farmers in the course of this year. The D.A. has not touched on this point in his reference to Govt But it is presumed he will take the necessary action.

The file may be placed on the

RK
18/9/36

Cā
18/9/36

Finance u/o

Fin Depn

There are no specific proposals before this Depn now. Any request for remissions of revenue or for additional appropriations under loans may be considered in due course, when proposals are received by us.
18.9.36

AS1

Cs 18/9/36

Rev

18 SEP 1936 FINANCE DEPT

2677 Cdeb

Govt 26728 Astt
18/9

Rec

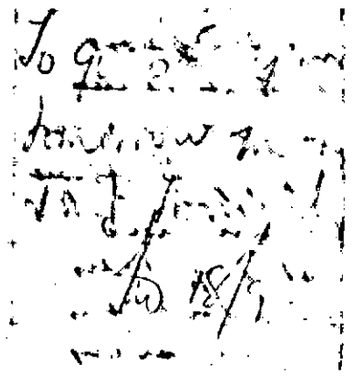
The file may now be circulated to H.M.C2.

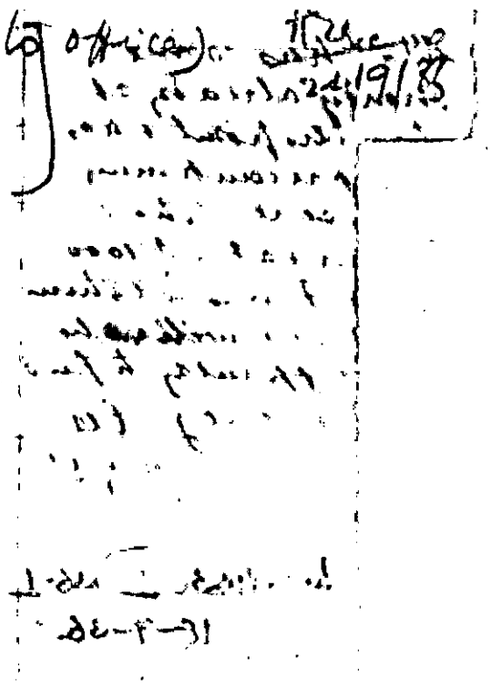
18/9

S.

19.9.86

C2 (seen by HMC2; Prop notes already sent to office)





-11-
37

Revenue Secretary:

I have inspected a considerable number of infected arecanut gardens and have told the Collector that he must have an intensive azmash of all gardens and report to the Board whether any relief is necessary. Some of the gardens are very badly infected indeed. Others are much less heavily infected and some show hardly any signs of the fungus. The Board should be asked to give a final report on the matter with its recommendations.

24.9.36

To H.S

The main file on the subject — Cyclo. 3421 2/36 — was called on 18.9.36 for submission to H.M. but has not yet been received. No return may be awaited.

11/s 26/

25.9.36

38

To Ld J

Please see H.M's minute at p. 11 ante. The Board may be asked D.O. to submit the report. Draft D.O. for approval [illegible]

28/9.

DW
28-9-8

DW
28/9

DW
28/9.

Revenue Department.

M D.O.No. ~~3451~~ 3421 E/36-~~5~~ dated 28.9.36

My dear Muir,

Season - (South Kanara) - Pest havoc - Areca gardens. Board's Reference M-No.4307/36-2 dated 14-9-36.

The Hon'ble the Revenue Member recently inspected a considerable number of infected arecanut gardens in South Kanara, and he has asked the Collector to conduct an intensive ~~xxx~~ azmaish of all gardens and to report to the Board of Revenue whether any relief is necessary. I am to request the Board to obtain a final report on the subject from the Collector and submit to the Govt. with its own recommendations, as soon as possible.

Yours sincerely,

28/9

28.9.36

28/9/36

Dpd. by Vera Post Messenger
Dpr.'s initials
Date 29/9 1936.

To D.I.R.Muir Esq., I.C.S.,
Joint Secretary,
Board of Revenue.

41 45

CW 4179 E 36 [From the Board
Ref M/L ... dt 5
... 10 36]

Sir,

In para 2 of its reference dt 7-8 Cl, the Board stated that it had called for an urgent report from the Director of Agriculture on the question of applying the Madras Agricultural Pests and Diseases Act to the South Kanara Dist. and that it would submit a further report to the Govt on receipt of the DA's report. The DA's report on the subject is on the 21-22 Cf. For the reasons stated in this report, the DA considers that the provisions of the Act need not be extended to this dist at present. The Board supports the DA's recommendation. The remarks of the Dev. Deptt may be invited on the point.

A 27/10

2. With reference to the Board's Resolution dt 7-8 Cl and the MDs dt 13 ult, a D.O. Rr to MDL Thair is submitted for approval. After its issue the file may be sent to the Dev Deptt with reference to A above.

27/10 Secy.

ASSISTANT SECRETARY TO GOVERNMENT
29 OCT 1936
DEVELOPMENT DEPARTMENT

Dw. 5435 III
29.10.36

27/10 35 27.10.36

Devt Dept.

To A.S.

Please see the Rev. Dept.'s note at p. 15/ante. As noted already on pages 8-9 ante, Govt. have agreed to the employment of 2 Agrl. demonstrators, 10 fieldmen, and 30 maistries & an establishment for controlling the 'mahali' Pest in the S. Kanara Dt. In addition, the D.A.'s proposal to purchase 100 sprayers and a ton of copper sulphate has also been accepted. The staff will be sanctioned from the beginning of Dec. 1936 for employment from the beginning of Dec. 1936 and proposals to do propaganda as requested by the D.A. Govt. have also agreed to the D.A.'s proposal to continue the propaganda work in the Dt. during 1937-38 in 10 selected villages in order to teach the ryots in the method of spraying etc.) In the above circumstances & in view of the Dir's remarks in para. 8 at p. 22 c.f. this Dept. may agree with the views of the D.A. & the Bd. of Rev. that the provisions of the Madras Agrl. Pests & Diseases Act need not be extended to the area at present. With the above remarks, the file may be returned to Revenue.

(paper not put up)

Orders will be issued early in December 1936. Supplementary grant has been obtained in the Legislature.

I agree that there is no need to extend the Act at present.

Rev

2-11-36

RR

7.11.36

CR

5.11.36

Rev u/o

ASSISTANT SECRETARY TO GOVERNMENT
REVENUE DEPARTMENT
RECEIVED 6 NOV 1936

D. No. 10-3436-III/36-1

6-11-36

Rv 4602 2-F

FI 6.11.36

43 TT

Rev. Deptt

To NS

Please see this Deptt note on
p 15 ante and the notes of the
Dev: Deptt on p 16 ante

Extension of the Agricultural Posts and
Telegraphs Act

This Deptt may a
[illegible] the discussion, of the Act [illegible]
be extended to this Province [illegible]
A draft on is submitted for approval.
2 The Special Report required
to be laid before the Board, Reference
on p. 7 of [illegible] may be [illegible], the [illegible]
have Received. -As is [illegible] may,
the extension [illegible] 12 36 - Note
p 5 ante

Dy
11 8 36

19/11/36

19/4
S

In para 9 of this report
on the "Bahali" Post the
Con. S. Towns expresses
his views on the applicability
of the Agric. Pests & Diseases
Act to the Dy was requested.
The Dy. of Agric.

1st Nil

for the reasons given at
f/s 21-22 CF. above I do
think that this rec. the
Bd of Rev. agrees
with him.

The Govt may
accept this view.

10.11.36.

C 3 Yr. I found that the
figures of accounts (most
of them Brahmins) were so impressed
with the necessity of adopting medical
measures, that the imposition of the
Pest Act was at any rate at present
unnecessary.

10.11.36

10/11

Om No 3421 E 26 dy 10.11.36 to } Under secy
Bodyguard Regt. } For information
10/11/36

No 176 E [From the Board of Rev Rep No. (430) 36-9 8.1.37] [No 25-26 CF.

To us.

Please see the Board's Reference on
25-26 CF. ~~For the reasons stated~~
~~by the Board has recommended~~
~~the maximum Remission of~~

45/19.

The ~~Board of Rev~~ Collector has stated that the pest has not affected the garden lands in Udipi Tk, bearing subtaluks and in the Mangalore Tk and that the damage to areca crop in the Buntwal Subtaluk is not so serious as to warrant the grant of remission of assessment. ~~The Board~~ He has recommended that the maximum remission of assessment on the scale laid down in B S O 14 (5)(ii) may be granted out in the case of ryots whose entire property has been estimated to have yielded a crop of 6 annas or less. gardens in the four talukas of Mangalore, Coondapur Karkal and Puttur. The approximate amount of remission involved in the proposals is reported to be Rs 4,700/-.

The Board supports the Collector's proposals. They may be sanctioned.

Please see in this connection the rules of the Rev on the subject.

A draft order is put up for approval. It may be sent to the Secy to Govt in Dept for acceptance

Asst.
19/3/77
19/3
9.1.77

The Collector's proposal that remission (at varying rates) may be given in all cases in which the entire property of the ryot has yielded a crop of 6 annas or less may be accepted. The remission will be on the ~~lands~~ areca gardens and a perusal of the statements shows that in cases in which the entire property of the ryot has yielded an outturn of 6 annas or less the outturn of the areca gardens is much below 6 annas. [e.g. in Coondapur Taluk].

2] As regards the actual rates of remission the Collector has recommended that the maximum in the scale under B.S.O. 14(5)(ii) may be granted. This will work out to a remission of

a) half the assessment on areca gardens owned by ryots where entire property has yielded an outturn of 4 to 6 annas

N.B. The normal yield is 12 annas

b) 3/4th the assessment ~~outturn of~~ outturn 2 to 4 annas

c) the entire assessment 0 to 2 annas.

In this connection please see B.S.O. 14 (10)(ii). The Govt does not grant relief on the scale laid down in B.S.O. 14 (5) but in this particular case the Collector's proposal is convenient

4/21.
and the rates of remission proposed by him are reasonable. The rates may be accepted.

19/1

S.

I do not think that the proposals for remission submitted by the Board are adequate or framed on the right lines, and I also do not think that B.S.O. 14(10) applies to this case.

The yield from areca palms in 4 out of the 6 Taluks in the District has been seriously affected by the pest, and a portion of another Taluk has been affected, but not very seriously. The "calamity" should therefore, I consider, be considered a widespread one and not merely a local one.

If this is accepted, remission should be granted on the lines prescribed in B.S.O. 14(5)(ii) and not under B.S.O. 14(10).

The rules of remission in the B.S.O. in cases of "calamity" do not provide for cases where crops, grown on garden lands, are affected. This is possibly due to the fact that such lands are only found in Malabar and South Kanara, where drought (the most common reason for special remission) is very rare.

However that may be, the garden lands in South Kanara are classified and assessed separately in the District and when the crops raised onthem are

affected for any reason on a widespread scale, special remission should, I think, be given for them in the same way as it is granted in the case of failure of crop on dry lands in special circumstances. B.S.O. 14(5)

It seems to be inequitable to take into consideration, in a case of this kind, the outturn of crops in the rest of a ryot's holding. The pest in question affects only the areca palm: it does not affect paddy, and in many cases although the yield from the garden land has been nil or only a few annas, the ryot is not, under the Board's proposals, eligible for any remission in the garden assessment owing to the outturn on paddy land.

It seems proper to take the remainder of a ryot's holding into consideration in assessing the quantum of remission to be granted in those cases in which the "calamity" is one which is calculated to affect all crops equally, e.g., drought which affects wet and dry equally. Floods in the West Coast districts might entirely ruin the paddy crop, while it would have little effect upon garden crops (coconut, areca, etc.). If the Board's principle were adopted in such a case, a man who had lost his entire paddy crop might be refused wet remission, if the yield from his garden land, when spread over the entire holding gave a return of over 6 annas.

In the present case therefore I suggest that remission may be granted on the analogy of the

failure of crop on dry lands owing to widespread calamity and be on the scale laid down in B.S.O. 14(5)(ii) as follows:-

(a)	where the yield is 6 as. or over		no remission.
(b)	-do-	is between 6 & 4 as.	30%
(c)	-do-	is between 4 & 2 as.	50%
(d)	-do-	is 2 as. or less	75%

This will increase the cost of remission, but the amount already recommended by the Board for 4 taluks only amounts to Rs.4,700/- and the increase will produce a very large figure.

ASSISTANT SECRETARY TO GOVERNMENT 22 JAN 1937 DEVELOPMENT DEPARTMENT

21.1.37

Devt. Dept.

S.A.S.

Please see the remarks of the Revenue Dept. at pages 18-23 ante regarding the remission proposed to be granted to those affected by the mahali disease on arecanut crops. This Dept. may agree to the views escpressed by the Secy. Rev. Dept. and the file passed on to Finance

21.1.37 21.1.37 26.1.37

Dev. No. 580 III/37-1
26-1-37

Fin(Accts)Dept
This dept also may agree with the Revenue Secretary. Revenue will no doubt call for the estimate of the loss involved

27 JAN 1937 FINANCE DEPT.

30.1.37

2-2-37

Rs. 3051 for RE for 1936-37 & BE for 1937-38 under "V. Land Rev. - Ordinary Revenue"

Hyd BE II
3.2.37

50 -44-

already fixed do not provide for any season remission in South Kanara. There is no definite information about the amount involved & its distribution between 1936-37 & 1937-38. It is not likely to be much. ~~The total allowance for season remissions in the Budget is 150 lakhs in RE 1936-37 & 12.00 in BE~~ The total allowance for season remissions in the Budget is 150 lakhs in RE 1936-37 & 12.00 in BE. It does not seem necessary to make any alteration in the estimates on this account.

K on p. 23 above

	Lakhs
× R.E. 1936-37	15.02
B.E. 1937-38	12.00

W
3.2.37.

W
4.2.37

Cs
4/2/37

~~Asst~~
~~Asstt D S~~
S

I submit that this case may properly be treated as a 'local calamity' and not a 'widespread calamity'. Only a part of one District is affected and only one particular crop within the tract. The general principle behind the difference between B.S.O. 14.10 and 14.5 seems to be that, where it would not involve an undue amount of labour, remission should be based on a field to field inspection and on the circumstances of each ryot with reference to his entire property or holding. Such detailed proposals are not feasible in the case of a widespread calamity. In the present case the detailed inquiries and proposals with reference to each ryot's holding have already been made and there is no question as to whether they are feasible or not. The proposals of the Collector and the Board seem to be correct with reference to B.S.O. 14.10 and may be accepted.

Please

I entirely agree.
Chf.

And even then, only if crops of those persons who failed to adopt the remedial measure advocated by the Agl. Dept.
Chf

practically over the entire district.

3. Please see Finance Dept note at p 25 above. The element of ryoti neglect does not seem to come in at all. It is mentioned only under B.S.O. 13 (2) and (3)(b) and it relates to damage easily within the ryoti control. The control of a pest is neither easy nor inexpensive. Have also to consider the ryoti capacity to pay the cost of preventive measures.

4. In the circumstances it is for order whether the suggestion at pp 22-23 may be pressed. In any case the Govt may grant any remission they wish & they are not bound by the B.S.O.

Tel. 32

S.

I agree with B/S & at p. 11 think that the calamity was a "widespread" one. The fact that the Rev. staff inspected each garden under the scheme does not make the calamity become "local"

If the element of ryoti neglect is introduced, no remission should be granted at all.

This point is fund

2854

Reference to the letter of the then Collector (Mr. Humayun) — A copy of which is attached.

H. M. has known the case & the site is well known to him & an order regarding the proposals of A on page 23 above of the Board proposals was accepted.

The site from page 18 are in general.

Sd
15.2.37

3. To any one who has seen the wide area affected the idea of a local calamity is strange. Equally strange is the idea that a ryot's paddy field should be taken into consideration in calculating the remission. These sea gardens are separately demarcated fields & are cultivated only with these gardens. The ryot who owns them looks to them for his profit. He gets little out of his paddy lands. Such gardens are separately assessed at special rates. I certainly consider that remission should be considered only with ref. to the yield of the gardens & not be mixed up with that of paddy.

Circ 15.2.37.

Sd
15.2.37

51

I agree with addl. Dy Secy. Paras 6, 7, 8 & 10 (particularly 7 and 10) of the Collr's letter at Cl. pp. 14-18 would seem to make out a perfectly clear case for treating this pest as a local calamity.

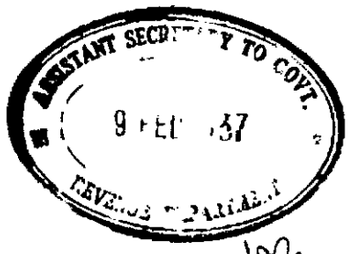
Granted that, the case for relief must be decided with reference to the entire holdings of the ryots under B.S.O. 14 (10)(iii). The equity or inequity of that general provision is a general question and is not peculiar to this particular case.

HMG may please see.

7/2/37

Rev.

Fin no 3051 Accts
8/2/37



F I 8/2/37

Rev.

'M' on the previous page does not seem to be entirely applicable to this case. Granting that the difference lies in the amount of labour involved in filling in pits for pits inspection, this calamity is obviously a widespread one. It is obviously not a local calamity as practically the entire district has suffered from the pest

102-26

The fact that detailed field-to-field inspection has been done already does not make this a local calamity. The inclusive system was carried out at the instance of H.H.C.3. whose remarks show that the damage was very severe in some cases.

2. As regards the argument that a only one crop was affected, the calamity should be considered a local one, please ~~see G.O. 868 S 17-4-36~~ and remission given only under B.S.O 14(10) please see G.O. 868 S 17-4-36. Kalla samba paddy was affected by a pest in the Nannilam & Negapatam Tks and the calamity was considered local, but the remission granted was not under B.S.O 14(10) with reference to the entire holding ~~but~~ but it was with reference to each field affected. The mere fact that only one crop was affected does not make the calamity local. If in the delta taluks of the Circars, the entire paddy crop is affected by a pest, it can't be considered a local calamity. The point is whether the calamity is "wide-spread" or confined to restricted areas. In this case the calamity extended

/ supra
15.2.37

p 116 of (supra)

p 37 of Book I (K).

p 15 of (K)

p 37 of Book I (K)

pp 31-32 of (K).

/ supra
15.2.37

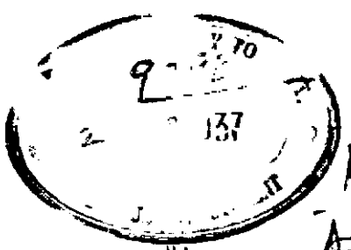
55 25

I can always understood
wide spread calamity to
mean a general failure
of crops in a comparatively wide area and
not the failure of a
particular crop in part
of a district owing to
special and peculiar cir-
-cumstances. I think it
would be a most dangerous
precedent to class this
case as a wide spread
calamity. On this principle
if the crop failed in a
district, special treatment
might be claimed for any
crop. At the same time
I am prepared to agree
that the special circum-
stances of the case demand
some special treatment
and I accept the rate
of remission proposed in
para 23. I gather that
the total remission will
on this basis not amount
to any large figure which

Finance Dept

Please see the previous
file. Work on both 23.25
and at Sep.

The draft order
may be perused & the
case returned to Revenue
by
Rec. 2.37



Dwd: 25.2.37 Cas 25/2/37

25/2

Rev.

Rev.

The draft order may now issue
pp 29-30 above. May be circulated to HMs for perusal & HM(Fin) note

27/2

27.2.37

Circ 27/1-3-37.

2.3.37.

57

DRAFT FOR APPROVAL.

Rev Deptt

	Date.	Initials.
When received for fair copying ..		
When copied ..		
When examined..		
When signed ..		
When despatched.		

SUBJECT:—

READ AGAIN _____, dated _____ 19____.

" " _____ " _____ 19____.

READ *ALSO*:—

No. 3421 E/36 From the Mr. A.B. Shetty, M.L.C., No. Nil, dated 28-8-1936.

" _____ " on behalf of a deputation Rep. M.4307/36-2 " 14-9-36 19.

" _____ " Board of Rev. " do 36-5 " 22-10-36

on to — Do — " 3421 E 36-6 " 10-11-1936

" from Do " M 4307/36-9 " 8-1-1937.

Order Ms. Resolution Rout. No. 479, dated 3 — 3 — 1937

Dp Revenue 2/3/37 Mark 2 show cause

1 | PF

Call in file 4 the need

C.B. 181/37

On August 1936, a deputation ~~led by Mr A.B.~~ Sri M. Ramakrishna Gowda ~~Shetty M.L.C.~~ waited on the Hon'ble the Revenue Member and submitted a memorandum representing that the areca gardens in ~~South Kanara~~ Dt had been damaged by the Mahali pest. The Hon'ble the Revenue Member visited the area in Septr. 1936 and inspected a considerable number of the areca gardens affected by the Mahali pest and

directed the Collector to conduct an intensive inspection of all the gardens and to report to the Board of Rev. whether any relief was necessary.

2. The Collector of South Kanara has now reported that the areca gardens in the taluks of Kasaragod, Coondapur, Karkal and Puttur alone require special treatment and he has recommended that the maximum remission allowable under the scale laid down in para 5(ii) of Bso-14 may be granted in respect of the areca gardens in these four taluks, in those cases in which the entire property (the areca garden) is held by the ryots whose net dry garden assessment has yielded on an out-turn of six annas or less. The Board of Rev. has supported the Collector's proposals.

3. ~~The Govt. however, consider~~
~~Consider it inadvisable to~~

Sl. 35 of Book I

Sl. 26c

3

Attacks

3. ~~Except~~ the pest ~~attacks~~ is one which

Seep. 2 para 2(iv) attacks ~~only~~ ~~by only attacks~~ only ~~of four areca palms, on a~~

the areca palms ~~in the district~~, four out of the six taluks in the district ~~have been~~ seriously affected by it and a portion of another taluk has been affected ~~to a great extent~~. The areca gardens are as a rule separately demarcated fields and are cultivated only with these palms and the ryot who owns them looks to them for his profit. The circumstances of the case are thus special

Cf. para 2(iii) p. 2 [illegible]

The Govt. circular Ref — and ~~require~~ special treatment is called for, and ~~in this case to~~ ~~no land revenue~~ (that remission ~~should be considered~~ solely with reference to the yield of the gardens and that no account should be taken of the portions of the ryots holding cultivated with other crops.

The amount of remission to be granted should be fixed

The Govt therefore direct (i) that remission (A.O. p 23 (i)) should be granted ~~The remission should be granted to~~ on the following scale on the analogy of B.O. No 14(5)(ii):—

6 — 4

of the areca garden

(a) Where the yield is six annas or over — No remission ✓ As orp 23 of

(b) Where the yield is between six and four annas — 30% ✓

(c) Where the yield is between four and two annas — 50% ✓

(d) Where the yield is ~~between~~ two annas or less — 75% ✓

4. The total amount remitted in accordance with these orders should be reported for the information of the Govt.

Dpd. by ... Asst Manager

Supr.'s init. 3/3

103

To issue G.O. with Secy Letter

As Govt's

2 addl copies

24.2.

Received.....1937. 63 Registered.....1937.

Abstract:

Assessment - Remission - South Kanara - Areca gardens - Mahali pest Remission - Sanctioned.

REVENUE DEPARTMENT.

G.O. No.No.479, Dated 3rd March 1937.

Read the following:-

From Mr. A.B. Chetty, M.L.C., dated 28th August 1936, on behalf of a deputation.
From the Board of Revenue, Ref.No.E4307/36-2, dated 14th Septr.1936.
From - do - , Ref.No.E4307/36-5, dated 22nd Octr. 1936.
Memo. to - do - , Ref.No.3421-E/36-6, dated 10th Novr. 1936.
From the - do - , Ref.No.E4307/36-9, dated 8th Janry. 1937.

O R D E R:-

In August 1936, a deputation from South Kanara District waited on the Hon'ble the Revenue Member and submitted a Memorandum representing that the areca gardens in that district had been seriously damaged by the Mahali pest. The Hon'ble the Revenue Member visited the area in September 1936 and inspected a considerable number of the areca gardens affected by the pest and directed the Collector to conduct an intensive inspection of all the gardens and to report to the Board of Revenue whether any relief was necessary.

2. The Collector of South Kanara has now reported that the areca gardens in the taluks of Kasaragod, Coondapur, Karkal and Puttur alone require special treatment and he has recommended that the maximum remission allowable under the scale laid in para 5(ii) of B.S.O.14 may be granted in respect of the areca gardens in these four taluks, in those cases in which the entire property wet, dry and garden held by a ryot has yielded an out-turn of only six annas or less. The Board of Revenue has supported the Collector's proposals.

3. Although the pest is one which attacks only the areca palm four of the six taluks in the district have been seriously affected by it and a portion of another taluk has been affected to some extent. The areca gardens are as a rule separately demarcated fields and are

cultivated only with these palms and the ryot who owns them looks to them for his profit. The circumstances of the case are thus special and the Government consider that special treatment is called for, and that the amount of remission to be granted should be fixed solely with reference to the yield of the gardens and that no account should be taken of the portions of the ryots' holding cultivated with other crops. The Government therefore direct that remission should be granted on the following scale on the analogy of B.S.O.No.14(5)(11):-

(a) Where the yield of the areca garden is six annas or over.	No remission.
(b) Where the yield is between six and four annas.	30 per cent
(c) Where the yield is between four and two annas.	50
(d) Where the yield is two annas or less	75

4. The total amount remitted in accordance with these orders should be reported for the information of the Government.

(BY ORDER OF THE GOVERNOR IN COUNCIL)

H. A. UZIELLI,

Secretary to Government.

To the Board of Revenue (with enclosures returned).
" Accountant-General through the Finance Department.
" Finance Department.

F o r w a r d e d

(By Order)

TJVR.3/3

Superintendent.

LEAFLET No. 34] 20,000—30-6-1931

Department of Agriculture, Madras

SPRAYERS AND SPRAYING.

The use of fungicidal mixtures and spraying machines is becoming increasingly known to the ryots of this Presidency. The arecanut grower on the West Coast has learnt what use he can make of a spraying machine and a simple mixture against "Mahali." The grape-vine growers in Madura district spray their vines against "Mildew." The potato cultivator now knows how his crop damaged by "Early blight" can be saved by spraying. There are several other diseases like "Leaf-rot" of turmeric, "Fruit-rot" of chillies, "Brown and Grey Blights" of tea, "Rust and Black-rot" of coffee and "Mildew and Scab" of oranges, etc., which are controlled by spraying. The object of spraying is to give a thin and even coating of a solution which dries on the surface and for that a "sprayer" is required.

DESCRIPTION OF A SIMPLE PRESSURE SPRAYER.

The sprayer consists of a reservoir, an air pump, a manometer, rubber hose, stop-cock, brass spray pipe, spraying nozzle, straps and funnel with strainer. (Vide Plates I and II.)

To the top of the reservoir four things are attached:—

(1) The circular opening through which the liquid is poured into the vessel is closed by a screw cap (11) to which is fitted a small movable lever to facilitate tight screwing.

(2) The air pump consists of a copper tube (6) within which is a piston rod (5) to which the piston head (3) is attached at the lower end and a handle (10) at the upper end. The lower part of the tube (6) contains a valve (2) kept in position against the lower opening of the tube by a spring (1). When the handle is pulled out as far as it will come and pressed down with vigour air is forced into the reservoir. This raises the air pressure inside.

(3) As the air pressure rises a watch-hand travels along the graduated dial of the manometer (8); when it has reached a red mark sufficient air has been pumped in to drive out the liquid contents.

(4) A small round box (7) contains vaseline to grease the piston and washers and also a spare piston-head.

When the sprayer is pumped full, the piston has a tendency to push itself up to its full length. This is inconvenient to the person using the sprayer. So a wire-hook (9) clips it down in the position shown in Plate I. At the lower end of the vessel is a small opening to which is attached in series a rubber hose (12), a stop-cock (13), a brass-rod (14) and a nozzle (15).

The nozzle, Plate II, Fig. 4, consists of seven parts screwed together to form one piece. The seven parts are drawn as figures 5 to 11 in illustration No. II, and the fitting of them together is obvious. On pressing upwards part (7) the needle (6) moves upwards into the small hole of part (5) and removes any small piece of grit that may be blocking the hole and stopping the liquid coming out as a spray.

Behind the sprayer a belt is attached to hang round the coolie's shoulder. It is, however, more comfortable to the coolie to put the sprayer in a canvas bag with padded shoulder straps.

To fill the sprayer ready for use unscrew the lid (11), push in the strainer Plate II, Fig. 22, shut the stop-cock (13) and push back the hook (9). Pour in one gallon of the liquid through the strainer, screw on the lid (11), pump in air till the watch hand travels to the red-mark and clip the hook (9) to the handle (10). The sprayer is now charged ready for spraying. Open the stop-cock (13) and a fine spray will come out of the nozzle (15).

Plate II illustrates various parts that may have to be replaced. No part need be replaced for several years except for some accident as dropping the sprayer from a height.

After spraying never put a sprayer away even for a night without being well washed, by pumping clear water through it until it is clean. The leather washers should be well oiled and all valves and connexions should be kept tight so that they will not leak.

Copper sprayers can be used for the use of copper and iron salts, Bordeaux mixture and all other non-sulphurous spraying liquids.

Several types and sizes of sprayers are available to suit various requirements. A pressure sprayer of about one gallon working capacity costs about Rs. 25, available from the Indo-Persian Trading Co., Karachi, who are agents in India for the well-known Holder Sprayers.

PREPARATION OF BORDEAUX MIXTURE.

Copper sulphate (blue stone)	1 pound.
Quick lime	1 „
(If air-slaked lime or hydrate of lime is used 1½ lb. may be used.)	
Water to make	10 gallons

Powder the required quantity of blue stone and dissolve it by tying it in a piece of cloth and hanging this in a vessel holding 5 gallons of water. Use only copper, wooden or earthenware vessels. (*Caution.*—Iron and zinc vessels are corroded by the solution.)

Slake the required quantity of lime by sprinkling water on it; and when it crumbles to a powder, add more water, a little at a time till a thick creamy paste is formed. Add the remaining quantity of water to the paste and stir well to make "milk of lime."

Strain the milk of lime through a filter into the copper sulphate solution and keep stirring the mixture vigorously all the time.

Test.—Dip a clean knife blade or other iron piece in the mixture for at least a minute. If the blade remains unchanged, the mixture is good. But if the blade becomes reddish, then add more lime till a clean blade dipped afresh in the mixture is not stained.

Adhesive for Bordeaux mixture.—During or immediately preceding the rainy season, it is advisible to add an adhesive to Bordeaux mixture. A common and effective adhesive is resin (rosin) dissolved in a boiling solution of washing soda, prepared in the following proportions:—

Resin	2 pounds.
Washing soda	1 pound.
Mixture	50 gallons.

Dissolve the soda in one gallon of water and bring to boil over a fire.

Add the powdered resin in small quantities and stir vigorously. For the first half hour of boiling the liquid is liable to boil over and care should be taken that the fire is not burning too vigorously. As the liquid becomes clear, the fire may be made to burn brighter during the next half hour. The adhesive mixture requires boiling for $\frac{3}{4}$ to 1 hour.

Stir the Bordeaux mixture vigorously and slowly add the resin-soda solution to the mixture. The mixture is now ready for use.

Any further particulars regarding the treatment of plant-diseases, spray mixtures, sprayers, etc., can be had from the Mycologist, Lawley Road P.O., Coimbatore.

S. SUNDARARAMAN,
Mycologist.

PLATE I

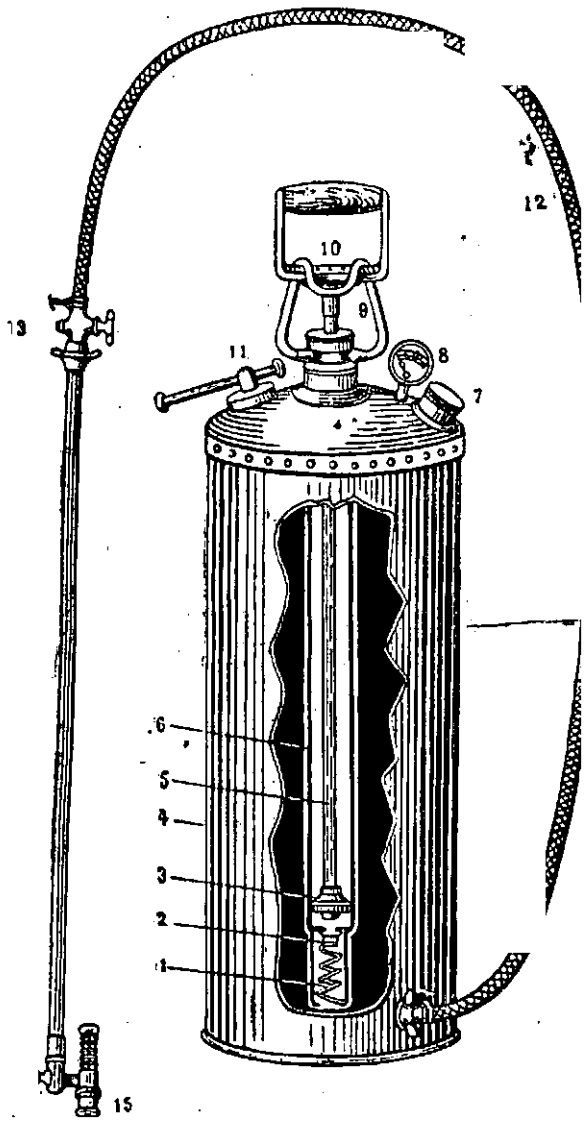
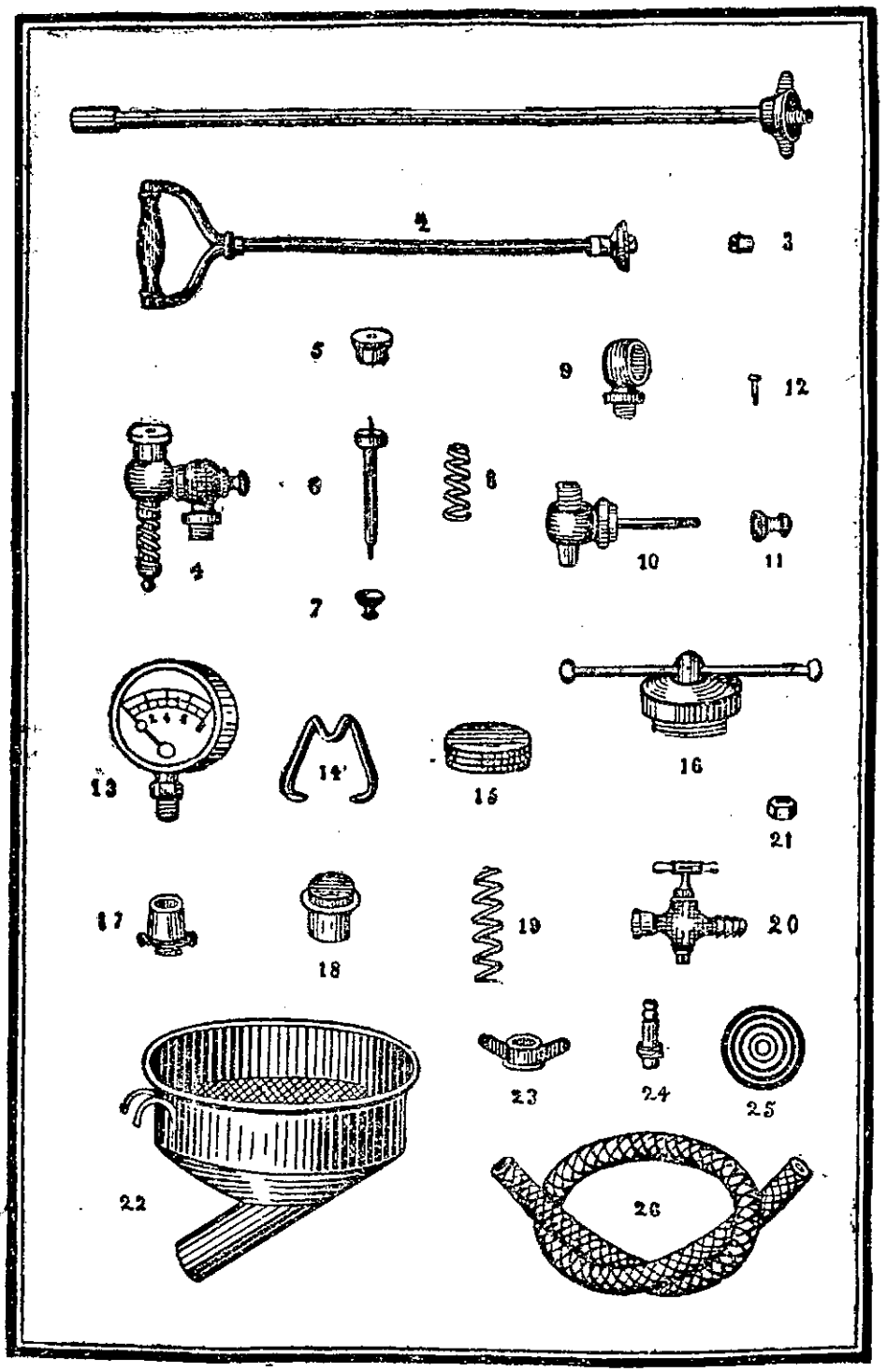


PLATE II



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LEAFLET No. 53. 2,500—30-10-1933.

Department of Agriculture, Madras.

THE MAHALI OR KOLEROGA DISEASE OF ARECANUTS AND COCONUTS.

For very many years the arecanut plantations in Western India had been suffering from nut-fall. This disease is common in Mysore, Cochin, Travancore and in a number of villages in Kanara and Malabar. The tree owners did not know the cause or the cure.

The Agricultural Departments took up the study of this disease about twenty years ago and have been successfully advocating measures which helped the owner in reducing the loss of income resulting from this disease.

This disease appears almost every year in infected gardens. In certain years the loss is not much, in some years it is considerable and at intervals the whole crop is lost.

That the disease has entered a garden and is present is easily known. The nuts rot, fall to the ground and are found strewn all over. They are covered by a white growth which is like the lint of cotton. It is this white substance which causes the disease. It is called a fungus. When it attacks the nuts they first become soft and then rot. Sometimes the fungus eats into the crown of the palm which consequently rots. The tree also dies.

The remedy is simple and if it is adopted with care and in time surprisingly good results are obtained.

The remedy consists in applying a mixture which will adhere to the skin of the nut and kills the fungus when it comes in contact with it so that it does not enter or grow. This mixture is known as "Bordeaux mixture." As the disease appears in rainy weather and as it is necessary to make the mixture adhere to the nut, an adhesive like resin is also added to the mixture in order that it is not washed down. If well-made mixture containing this adhesive is sprayed on the nuts and dries on the nuts before the rain comes it sticks to them for months.

This mixture should be applied once, before the monsoon breaks when the bunches have been just formed and are small and once or twice again on bright weather days as the nuts grow bigger in size but before the end of July as the disease usually appears about then.

Whether the disease has appeared or not in any plantation, spraying should always be attempted to secure an assured income. Gambling with weather will not save a crop.

The first thing to do before spraying is commenced is to examine the ground and the trees which stand on it, to collect fallen nuts and bunches on the ground and old bunches on trees and burn them as these serve as nurseries for the fungus which grows, multiplies and infects the whole plantation.

The mixture should be prepared and applied in the manner detailed in leaflet No. 34.

It should be prepared and used as quickly as possible as it deteriorates on keeping.

Just the quantity that is required for the day's work should be prepared each day. Each day's requirement should be estimated beforehand. The number of trees that can be sprayed depends upon various circumstances, such as the height of the trees, the distance apart, the number and size of the bunches, the dexterity with which the coolie climbs and the care he bestows in applying the mixture so as to reduce waste to as low a quantity as possible.

This disease attacks coconut bunches also. The symptoms and the treatment for coconuts are the same as those for arecanuts. The disease easily spreads from arecanuts to coconuts when both are grown in the same garden.

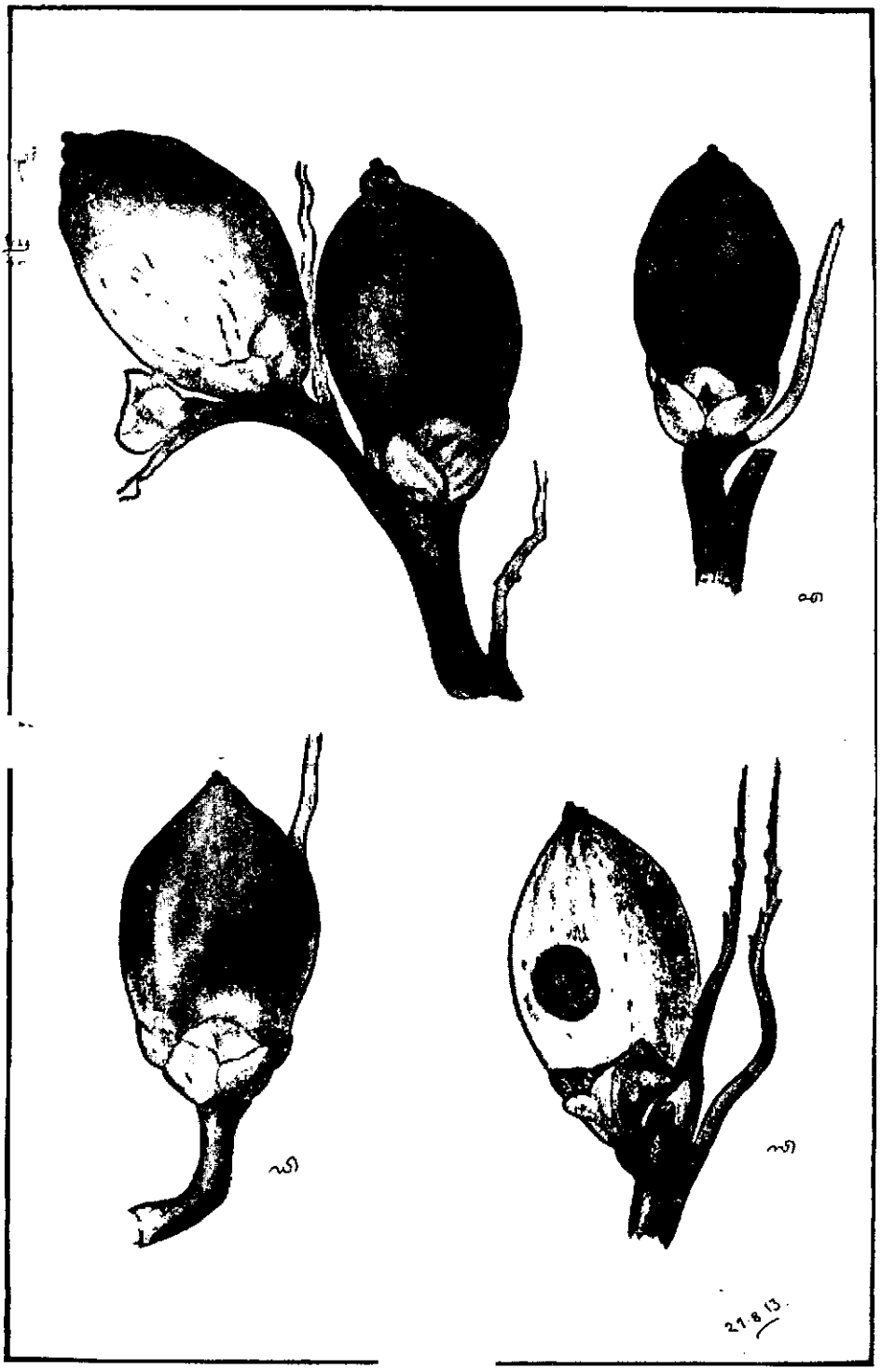
Often it happens that some owners do not make any preparation for spraying before the monsoon breaks out or until after the disease has actually appeared. This is unwise. Any attempt made later does not serve any useful purpose. It only leads to waste as the fungus has already entered the nuts and started doing its mischief.

Several types and sizes of sprayers are available to suit varying requirements of plantation owners. An ordinary pressure sprayer of one gallon working capacity costs about Rs. 30 and can be had from the Indo-Persian Trading Co., Karachi, or the Standard Furniture Co., Ltd., Kallai, Malabar.

S. SUNDARARAMAN,
Government Mycologist.

9th October 1933.

PLATE I.



ARECANUTS SHOWING THE DISEASE.

PLATE II.

SPRAYING.

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